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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,684	07/01/2003	Kazuyuki Hayamizu	15115.081001	5327

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EXAMINER

PETKOVSEK, DANIEL J

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/611,684

Applicant(s)

HAYAMIZU ET AL.

Examiner

Daniel J. Petkovsek

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on IDS filed September 9, 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-9, 11-14, 17-19, 21-23, 26-30, and 32-33 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 10, 15, 16, 20, 24, 25 and 31 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on July 1, 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/29/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This office action is in response to the pre amendment of the claims, filed July 1, 2003.

In accordance, claims 1-33 are pending (claims 1, 2, 6, and 7 independent).

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The prior art documents submitted by Applicant in the Information Disclosure Statements filed on September 29, 2003, have been considered and made of record (note attached copy of forms PTO-1449).

Claim Objections

3. Claims 12-14, and 23-33 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. See MPEP 608.01 (n), Section III (Infringement Test). Applicant is required to cancel the claims, or amend the claims to place the claims in proper dependent form, or rewrite the claims in independent form. Since these device claims are only limited by the structure of the independent method claim, these dependent claims are construed as having a broader scope than their respective independent claim. These device claims (12-14, and 23-33) can be realized by other methods that may have different structure.

4. It is also requested, for ease of prosecution, that in a response the Applicant renumber the claims (cancel all claims and re-number from 34-66). In this ordering, it is requested that all dependent claims directly follow the claim that they are dependent upon. **For example**, claims

1, 3, 4, 5, 11-14, 24-26, 32, and 33 should be renumbered "34-46". Appropriate correction is required.

Drawings

5. The drawings are objected to because figures 1 and 2 are not labeled "Prior Art". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 2, 5-9, 11-14, 17-19, 21-23, 26-30, 32, and 33 are rejected under 35

U.S.C. 102(e) as being anticipated by Okubora et al. US 2004/0047539 A1.

Okubora et al. US 2004/0047539 A1 teaches (see Figs. 8A, 9A, 11A, 13-15, 18, [0141], [0155], [0156]) a method of manufacturing an optical waveguide device, comprising the steps of: bonding a first substrate having an optical waveguide region 11 to a second substrate (IOB 2 (by bonding layer 6)) having a functional region over almost a whole surface, wherein the waveguide region has a core 54 and cladding 55, opposing at least part of the functional region to the outside of the optical waveguide region of the first substrate, and removing an unnecessary part (see Figure 14, [0156]) of the first substrate opposite to the functional region, which clearly, fully meets Applicant's *claimed* limitations (independent claims 1 and 6).

Regarding claim 2, the selective removal of some of the first substrate creates separate/individual optical waveguides.

Regarding claim 7, the removal of unnecessary parts in Okubora et al. '539 also removes optical substrate of the first substrate.

Regarding claims 5 and 17, see the last sentence of [0156] for dicing means to remove the unnecessary part.

Regarding claims 11, 21, and 22, glass epoxy resin (for bonding layer 6) has *almost* the same refractive index as the cladding. The refractive indices will be almost the same.

Regarding claims 8 and 18, peeling off layer 91 is disclosed.

Regarding claims 9 and 19, see [0140] for the pressure applied to shape the waveguide region using film.

Regarding claims 12-14, 23, 26-30 and 32-33, the device waveguide is disclosed by the manufacturing method.

Allowable Subject Matter

8. Claims 3, 4, 10, 15, 16, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record does not teach or reasonably suggest that the *unnecessary parts are removed by* the uncured layers or layers having low adhesive properties (claims 3, 4, 15, and 16). The prior art of record does not teach or reasonably suggest that that, in the groove formed by the removal of the unnecessary material, that a filter is inserted in this groove (claims 10 and 20).

Inventorship

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of optical integrated devices using a plurality of substrates, and attached a waveguiding layer thereto: PTO-892 form references B-G.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Petkovsek
March 18, 2005



AKM ENAYET ULLAH
PRIMARY EXAMINER